

EXHIBIT D

Declaration of Lyle Winn

**UNITED STATES BANKRUPTCY COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

	X	
In re	:	Chapter 9
	:	
CITY OF DETROIT, MICHIGAN,	:	Case No. 13-53846
	:	
Debtor.	:	Hon. Steven W. Rhodes

DECLARATION OF LYLE E. WINN, P.E.

1, Lyle Winn, P.E. hereby declare under the penalty of perjury pursuant to 28 U.S.C. §1746 as follows:

1. I am a licensed Professional Engineer with a Bachelor of Science in Civil Engineering from Michigan Technological University and nearly 26 years of engineering experience with a focus in municipal engineering and construction.

2. I have provided consultation, engineering administration services on numerous drain and sewer construction and repair projects including project estimation, planning, bidding, awarding, budgeting, management, review and inspection. Some of my municipal projects included work includes administration services provided in connection with emergency repairs including a 36-inch sewer collapse in Shelby Township.

3. I currently hold the position of Senior Project Engineer at Anderson, Eckstein and Westrick, Inc. ("AEW").

4. For more than 30 years, AEW has served as a Professional Engineering and Construction Administration Service Consultant for the County of Macomb including its Public Works Department ("MCPW") and the Macomb Interceptor Drain Drainage District ("MIDDD").

5. In or about March 2011, AEW was asked by MIDDD to estimate a reasonable total project cost for the repair project undertaken by the Detroit Water and Sewerage Department ("DWSD") pursuant to DWSD Contract CS-1368 after the failure of the 15 Mile and Hayes Road interceptor on or about August 22, 2004 that resulted in a large sinkhole in the City of Sterling Heights, Macomb County, Michigan.

6. AEW was informed that the review was being requested following the issuance of an indictment against certain DWSD officials that outlined a criminal enterprise that resulted in bid rigging and overcharges on DWSD contracts including the 15 Mile and Hayes project.

7. In connection with this review, AEW was provided with documents totaling 21,738 pages including plans, contracts, budgets, pay estimates, daily reports, project photos, articles and publications, Sewer Condition

Assessment Inspection Reports, construction, restoration and survey drawings for the 15 Mile and Hayes project whereby AEW could estimate a cost for the project.

8. AEW reviewed and analyzed these documents and performed other work it thought necessary to create a project estimate that is based on the quantities and scope of services described in the documents and relied on quantities, details and specs of the project including those within the plan marked NTH 017117-NTH 017182 (stamped M1DDD 43719- M1DDD 43784). AEW did not attempt to perform a forensic analysis of all of the charges to determine the amount of overcharges.

9. For purposes of this review, and given the limited nature of available information, AEW accepted at face value the \$11,592,700.00 in charges for 'emergency repairs' which were complete by, at latest, September 30, 2004 when the bypass was operational stabilizing the nature of the emergency.

10. Including the total for 'emergency repairs,' AEW determined that the project cost should have been \$28,828,490.00 as follows:

Emergency Work Estimate (Through September 30, 2004)	\$11,592,700.00
Mobilization (Assume 5%)	\$ 677,400.00
Bonds and Insurance (Assume 2%)	\$ 270,960.00
Bypass Pumping	\$ 3,454,200.00
Dewatering	\$ 589,500.00
Monitoring	\$ 638,280.00
Ventilation	\$ 162,000.00
Security	\$ 316,800.00
Traffic Maintenance and Control	\$ 66,600.00
Bulkhead 11' Diameter Sewer	\$ 500,000.00

Bulkhead 8' Diameter Sewer (Clinton-Fraser Connection)	\$ 25,000.00
Temporary Earth Retention System	\$ 3,042,000.00
Reconstruct Access Shaft	\$ 80,000.00
Remove and Replace Damaged Pipe	\$ 1,513,400.00
Bulkhead Removal	\$ 50,000.00
Sewer Cleaning and TV Installation	\$ 825,000.00
Pavement Restoration	\$ 957,200.00
Utility Restoration-Utility Companies	\$ 821,200.00
Utility Restoration- Public Works	\$ 166,300.00
Landscape Restoration	\$ 163,300.00
Final Cleanup (\$500/Sta)	\$ 14,000.00
Soil Erosion and Sedimentation Control	\$ 31,850.00
City of Sterling Heights, Macomb County, OMCPW	\$ 134,400.00

TOTAL ESTIMATED CONSTRUCTION COST **\$26,089,090.00**

Engineering (4%)	\$ 1,043,600.00
Construction staking, Settlement Checking and As-Built (1%)	\$ 260,900.00
Construction Observation (4%)	\$ 1,043,600.00
Construction Contract Administration (1%)	\$ 260,900.00
Construction Soils and Materials Testing (0.5%)	\$ 130,400.00

TOTAL ESTIMATED COST **\$28,828,490.00**

11. This estimate project cost is consistent with both Amendment 2 to DWSD Contract CS-1368, attached hereto as **Exhibit 1**, which contemplated a \$35 Million total project cost and the Inland Waters Budget dated September 30, 2004 that projected a total project cost of \$33,702,881.70. **Exhibit 2**.

12. However, the project charges paid were in a total amount of \$54,467,200.00.

13. Accordingly, AEW concludes that there were overcharges of at least \$25,638,710.00 on the 15 Mile and Hayes Road project.

14. Though a forensic analysis has yet to be completed, AEW did note the following during its review:

a. Charges for bypass pumping by multiple companies including Thompson Pump Midwest, Mersino Pump & Power, O'Laughlin Construction and Ferguson Enterprises from October 1 through March 31, 2005 total \$1,564,847.39 per month which is an astronomical number for this service. See October 2004 Invoice marked DWSD 1024 (stamped MIDDD 379).

b. Charges for dewatering by Mersino Pump and Power was budgeted for a 12 month time period beginning October 1, 2004 with actual charges totaling on average \$464,212.30 per month which is seven-times in excess of a reasonable estimated charge of \$65,533.33 per month, as delineated in the Inland Waters' Budget dated September 30, 2004 budgeted cost. **Exhibit 2, p.1.**

c. Charges for security at the site are excessive at \$80,535.00 per month. Even accepting that armed security guards were needed all day, every day over an eleven-month timeframe, the moderate-to-high average rate for armed guard is \$40 per hour so that coverage on this schedule should have totaled \$28,800 per month.

d. Markups are far in excess of any accepted practice or industry standard including (i) Inland Waters added a 15% markup to its own invoices for the first 4 months on the project and a 10% markup to its own invoices for the balance of the project; (ii) Inland Waters added an 8% markup to subcontractor invoices for the first 4 months on the project and a 5% markup to subcontractor invoices for the balance of the project; (iii) subcontractors including L. D'Agostini & Sons added 10-15% markups on their own invoices; and (iv) subcontractors including L. D'Agostini & Sons added between 5% markups to their sub-subcontractor charges, which were in addition to markups by general contractor Inland Waters.

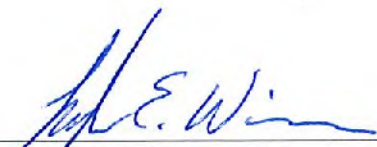
e. It appears that changes for the project were to be covered by Amendment 2 to DWSD Contract CS-1368 (Exhibit A) which was in the amount of \$35,000,000.00 in December 2004 but Amendment 3 had to be issued in June 2005 to cover the additional charges of \$23,000,000.00 though there is no indication of a change in circumstances or an unanticipated condition. Additionally, Amendment 4 issued in June 2005 to approve another \$12,000,000.00 for ongoing work for inspection and in-place rehabilitation.

f. The daily field reports of DWSD show employees and equipment on site from Ferguson-entities on an almost daily basis while the daily reports by NTH Consultants have Ferguson-entities only on-site occasionally.

15. If called upon to testify, I could testify competently to the facts set forth in this declaration.

16. I declare under penalty of perjury that the foregoing is true and correct.

By:


Lyle E. Winn, PE
Senior Project Engineer
Anderson, Eckstein and Westrick, Inc.

Subscribed and sworn to before me on
July 10, 2014.

, Notary Public

State of Michigan, County of Oakland.

My Commission Expires: Nov. 2020.

Acting in the County of Macomb.

Robert J. Morris

**UNITED STATES BANKRUPTCY COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

-----X		
In re	:	Chapter 9
	:	
CITY OF DETROIT, MICHIGAN,	:	Case No. 13-53846
	:	
Debtor.	:	Hon. Steven W. Rhodes
-----X		

DECLARATION OF LYLE WINN INDEX OF EXHIBITS

EXHIBIT 1: CS-1368 Amendment 2

EXHIBIT 2: September 30, 2004 Estimated Budget

Exhibit 1

KWAME M. KILPATRICK, MAYOR

CITY OF DETROIT

AND SPECIAL ADMINISTRATOR FOR THE
DETROIT WATER AND SEWERAGE DEPARTMENT

AMENDMENT NO. 2
CONTRACT NO. CS-1368
CONTRACT PURCHASE ORDER NO. 2570872

FOR

CONSULTING SERVICES

BETWEEN

CITY OF DETROIT, MICHIGAN
BOARD OF WATER COMMISSIONERS

AND

INLAND WATERS POLLUTION CONTROL, INC.

"INSPECTION AND IN-PLACE REHABILITATION OF
EXISTING CIRCULAR AND NON-CIRCULAR SEWERS"

SPECIAL ADMINISTRATOR
OF
THE DETROIT WATER AND SEWERAGE DEPARTMENT
ORDER NUMBER 2004-5

TO: Honorable City Council
 Honorable Board of Water Commissioners
 Department Heads and Deputies
 Executive Staff Boards and Commissions

SUBJECT: Award of Emergency Amendment (Amendment 2) to Dismiss Contract No. CS-1368 With Inland Waters Pollution Control, Inc.

On February 7, 2000, the Federal District Court issued an Order and Supplement to Order Appointing Special Administrator for the Detroit Wastewater Treatment Plant of the Detroit Water and Sewerage Department ("DWSD") in the matter of *U.S. EPA v City of Detroit, et al.* Case No. 77-71100 ("Orders"). The Orders created the position of Special Administrator of the Detroit Wastewater Treatment Plant for the purpose of correcting the causes of noncompliance by DWSD with its NPDES permit and for the purpose of achieving long term, sustained compliance with the permit. On December 3, 2001, by Order Continuing Special Administratorship for the Detroit Water and Sewerage Department, effective at 12:01 a.m. on January 1, 2002, I was appointed Special Administrator of the Detroit Water and Sewerage Department, and the purposes of the Orders were continued. The February 7, 2000 Order directs me to address and correct the various problems with the management and operation of the Detroit Water and Sewerage Department that were identified in the January 17, 2000 Report of the Committee of Investigation, by carrying out the provisions of the July 12, 1999 Plan for Compliance of the Detroit Water and Sewerage Department and by carrying out the recommendations of the Organizational and Operational Review ("OOR") Report of March 1995. These documents form the foundation of the responsibilities to be undertaken by me.

The Orders, as continued by the December 3, 2001 Order, further provides that as Special Administrator, I shall have full power and authority to control, manage and operate the DWSD, including all functions and powers of the Detroit City Council, the Detroit Board of Water Commissioners, the DWSD and any other departments, boards or divisions of the City of Detroit to the extent that they affect my ability to meet the requirements of sustained compliance with the NPDES permit, the Second Amended Consent Judgment ("SACJ"), and other specific responsibilities outlined in those Orders. They also provide me the power to enter into and perform all contractual obligations of the system, and to hire such contractors which I deem necessary or appropriate.

KWAME M. KILPATRICK, MAYOR

CITY OF DETROIT

AND SPECIAL ADMINISTRATOR FOR THE
DETROIT WATER AND SEWERAGE DEPARTMENT

AMENDMENT NO. 2
CONTRACT NO. CS-1368
CONTRACT PURCHASE ORDER NO. 2570872

FOR

CONSULTING SERVICES

BETWEEN

CITY OF DETROIT, MICHIGAN BOARD OF WATER COMMISSIONERS

AND

INLAND WATERS POLLUTION CONTROL, INC.

"INSPECTION AND IN-PLACE REHABILITATION OF
EXISTING CIRCULAR AND NON-CIRCULAR SEWERS"

RECITATIONS

This Amendment Agreement No. 2 (hereinafter called the "AMENDMENT") dated the _____ day of _____ 20__ between the City of Detroit, a Municipal Corporation of the State of Michigan, its Board of Water Commissioners of the Water and Sewerage Department, hereinafter referred to as the "CITY" or "DWSD", party of the first part, acting by and through Kwame M. Kilpatrick, Mayor of the City of Detroit and Special Administrator for the Detroit Water and Sewerage Department, and Inland Waters Pollution Control, Inc., with offices located at 2021 South Schaefer Highway, Detroit, Michigan 48217, hereinafter referred to as the "CONSULTANT", party of the second part, made relative and pertaining to Contract No. CS-1368 dated June 26, 2002, by and between the CITY and the CONSULTANT, as previously amended; and

WHEREAS, by Order in a civil action now pending before the United States District Court for the Eastern District of Michigan ("Court"), known and numbered as United States of America v. City of Detroit and Detroit Water and Sewerage Department, No. 77-71100, the Court appointed Kwame M. Kilpatrick, Mayor of the City of Detroit, Special Administrator of the DWSD for the purposes and with the powers set forth in such Order; and

WHEREAS, the Special Administrator wishes to exercise the powers of the Detroit City Council, the Detroit Board of Water Commissioners, and the DWSD (collectively, the "City Bodies"), as authorized by the Order, to the extent necessary to enter into and bind the City and the City Bodies to the terms of this Contract as set forth herein; and

WHEREAS, the CITY desires to engage the CONSULTANT to render certain technical and/or professional services (herein called the "Services"), in connection with inspection and in-place rehabilitation of selected existing sewers using the procedures, methods and equipment of the cured-in-place pipe process; and

WHEREAS, it is of vital importance to DWSD to protect the health, safety and welfare of citizens in sewer rehabilitation areas by maintaining the flow in the existing sewers, at all times maintaining satisfactory conditions for the control and/or proper disposal of storm waters, domestic and sanitary waste waters; and

WHEREAS, the CONSULTANT represents that it is authorized and able to provide professional personnel that are qualified to perform the Services in a manner which is responsive to the CITY'S needs in all respects; and

WHEREAS, other related services may be provided in support of the Services;
and

WHEREAS, Article 16 "AMENDMENTS" of the Contract provides that the
Contract can be amended; and

WHEREAS, the objectives of this Amendment are to address emergency
conditions resulting from the apparent collapse of a section of a large DWSD sanitary
interceptor located in Macomb County; and

WHEREAS, it is the mutual desire of the parties hereto to amend the Contract to
increase compensation by \$35,000,000.00 setting a new Total Contract Amount of
\$95,000,000.00; and

WHEREAS, it is the desire to amend the Contract to increase insurance
coverage; and

WHEREAS, to perform these additional services it is necessary that contract
time be extended by 365 days, setting a new date for completion of all contract services
at July 19, 2006;

NOW THEREFORE, in consideration of the promises, the mutual undertakings
and benefits to accrue to the parties and to the public, the parties hereto agree as
follows:

I. ADJUST TIME

Delete entirely Section 4.03 of Article 4 "TIME OF PERFORMANCE AND LIQUIDATED DAMAGES" and use the new section as hereinafter follows:

4.03 Contract duration is four (4) years. In no event shall the time period stated herein be extended, except in accordance with the provisions of Article 16 "AMENDMENTS."

II. ADJUST SCOPE OF WORK

Delete entirely Section 2.01 of Article 2 "SCOPE OF SERVICES" and use the new section as hereinafter follows:

2.01 The CONSULTANT shall perform in a satisfactory and proper manner, as determined within the sole and reasonable discretion of the DWSD, the Services as described below and in Exhibit A "WORK PLAN and DESIGN SPECIFICATIONS" and in Exhibit A-1 "THE SANITARY INTERCEPTOR EMERGENCY REHABILITATION." The Services are understood to include investigation and in-place rehabilitation of existing sewers by using the cured-in-place pipe method, as identified by Task Order. In the event that there shall be any dispute between the parties with regard to the extent and character of the Services to be performed, or the quality of performance under the Contract, the interpretation and determination of the DWSD shall govern.

III. ADJUST COMPENSATION

Delete entirely Section 7.01a of Article 7 "COMPENSATION" and use the new section as hereinafter follows:

7.01a The Total Contract Amount shall not exceed \$95,000,000.00 except by amendment to this Contract.

Amend Article 7 "COMPENSATION" and use the new section as hereinafter follows:

7.03 The CITY agrees to pay the CONSULTANT on a cost fee basis in accordance with the summary shown as Exhibit B-2 "COSTING SUMMARY FOR EXHIBIT A-1". The DWSD's determination of the completion of this Task Order shall control the amount of payment.

IV. AMEND EXHIBITS

Amend Exhibits to include Exhibit A-1 "THE SANITARY INTERCEPTOR EMERGENCY REHABILITATION" and Exhibit B-2 "COSTING SUMMARY FOR EXHIBIT A-1" attached hereto.

V. ADJUST CONTRACT LANGUAGE

Amend Article 2 "SCOPE OF SERVICES" and use the new sections as hereinafter follow:

2.01h The Consultant shall provide a Performance Bond and a Payment Bond in an amount equal to \$35,000,000.00. These bonds shall apply only to the Scope of Work contained in Exhibit A-1, Sanitary Interceptor Emergency Rehabilitation.

2.01i The Consultant expressly warrants and guarantees to the Owner and Engineer that the labor and materials on completed work performed pursuant to Exhibit A-1 will conform to the Contract

Documents and will not be defective for a period of three (3) years, commencing with the date that the owner takes use of the constructed facility.

Amend Article 10 "INSURANCE" and use the new section as hereinafter follows:

10.07 The CONSULTANT shall maintain at its expense during the term of this Contract the following types and amounts of insurance. With the exception of Worker's Compensation, Employers' Liability, Professional Liability, and Comprehensive Automobile Liability such insurances shall name as an Additional Insured the City of Detroit, a municipal corporation of the State of Michigan, and all other associated, affiliated, allied and subsidiary entities now existing or hereafter created as their respective interests may appear. The insurance policies described in this Amended Section 10.07 shall apply to the work done pursuant to Exhibit A-1 The Sanitary Interceptor Emergency Rehabilitation.

TYPE OF INSURANCE

MINIMUM AMOUNT

WORKER'S COMPENSATION

Statutory

EMPLOYER'S LIABILITY

Each Accident	\$	500,000
Each Disease	\$	500,000
Each Person	\$	500,000

PROFESSIONAL LIABILITY

(Errors and Omissions)	\$	1,000,000
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COMMERCIAL GENERAL LIABILITY (Broad Form)

Bodily Injury – Each Occurrence	\$	1,000,000
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Body Injury – Aggregate	\$	2,000,000
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(Completed Operations)

Property Damage – Each Occurrence	\$	1,000,000
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Property Damage – Aggregate	\$	2,000,000
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or

Combined Single Limit	\$	2,000,000
COMPREHENSIVE AUTOMOBILE LIABILITY		
Bodily Injury	\$	500,000
Property Damage	\$	250,000
or		
Combined Single Limit	\$	1,000,000
EXCESS LIABILITY	\$	20,000,000
OWNER'S PROTECTIVE INSURANCE	\$	1,000,000
BUILDER'S RISK LIABILITY	\$	35,000,000

Delete entirely Section 20.03 of Article 20 "MISCELLANEOUS" and use the new section as hereinafter follows:

20.03 This instrument (including Exhibits A, A-1, B-1, B-2, C, D, E and F) contains the entire agreement between the parties and all prior negotiations and agreements are merged herein. Neither the CITY nor the CITY'S Agents have made any representations except those expressly set forth herein, and no rights or remedies are or shall be acquired by the CONSULTANT by implication or otherwise unless expressly set forth herein.

In the event that the language, terms and/or conditions as stated in the Contract itself differs from that in any of the exhibits, the language terms and conditions of the Contract shall govern: all such determinations will be made by the DWSD.

VI. EFFECT OF AMENDED TERMS ON THE REMAINING PROVISIONS OF THE CONTRACT

Except as herein amended, the terms and conditions of the Contract, dated July 26, 2002, and as previously amended, shall remain the same and govern the relationship of the parties.

IN WITNESS WHEREOF, the City and the Consultant by and through their duly authorized officers and representatives have executed this Contract as of the day and year first above written.

WITNESS: (Consultant)

(Signature) Rene Priópio
Rene Priópio
(Print or Type)

(Signature) Kathryn Dickey
KATHRYN Dickey
(Print or Type)

WITNESS: (Director)

(Signature) Rechanda Céspedes
(Print or Type) **RECHANDA CESPEDES**

(Signature) Debra L. Ragland
(Print or Type) **DEBRA L. RAGLAND**

THIS CONTRACT WAS APPROVED
BY THE CITY COUNCIL ON _____

Christina J. For 12/23/04
Purchasing Director Date

Inland Waters Pollution Control, Inc.
CONSULTANT

BY Robert D. Williams
(Authorized Signature)

TITLE President

2021 South Schaefer Highway
ADDRESS Detroit, Michigan 48217

TELEPHONE No. (313) 841-5800

Social Security Number or Federal
Identification No. 38-2024780

CITY OF DETROIT
BY
SPECIAL ADMINISTRATOR FOR THE
DETROIT WATER AND SEWERAGE
DEPARTMENT

BY Victor M. Mercado

TITLE Victor M. Mercado, Director

APPROVED BY LAW DEPARTMENT
PURSUANT TO §6-406 OF THE
CHARTER OF THE CITY OF DETROIT

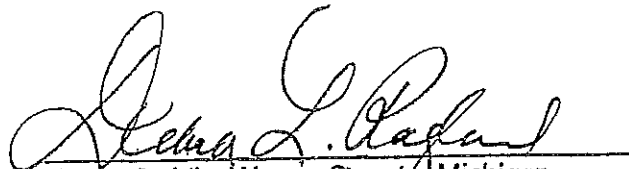
12-10-2004
Corporation Counsel Date

November 2004

CITY ACKNOWLEDGEMENT

STATE OF MICHIGAN)
) SS.
COUNTY OF WAYNE)

The foregoing instrument was acknowledged before me this 16 day of November, 2004, by GARY FUJITA, the Deputy Director, of the Water and Sewerage Department of the City of Detroit, Michigan a municipal corporation.


Notary Public, Wayne County, Michigan
My Commission Expires:

DEBRA L. RAGLAND NOTARY PUBLIC STATE OF MICHIGAN WAYNE COUNTY ACTING IN: MY COMMISSION EXP. MAR. 2, 2006
--

November 2004

If a corporation, please complete the following:

RESOLUTION OF CORPORATE AUTHORITY

I, Susan L. Johnson, Corporate Officer of Inland Waters Pollution Control, Inc.
(Print or Type)
Michigan Corporation (the "Company" DO HEREBY CERTIFY
that the following is a true and correct excerpt from the minutes of the meeting of the
Board of Directors duly called and held on November 10, 2004 and that the
same is now in full force and effect:

"RESOLVED, that the Chairman, the President, each Vice President, the
Treasurer and the Secretary and each of them, hereby is authorized to
execute and deliver, in the name and on behalf of the Company and under its
corporate seal or otherwise, any agreement or other instrument or document
in connection with any matter or transaction that shall have been duly
approved; the execution and delivery of any agreement; document, or other
instrument, or document in connection with any matter or transaction that
shall have been duly approved; the execution and delivery of any agreement,
document or other instrument by any of such officers to be conclusive
evidence of such approval."

I FURTHER CERTIFY that _____ is Chairman of the Board,
and Robert L. Williams is President, David Dixon is
Treasurer, Bryant M. Frank is Secretary.

I FURTHER CERTIFY that any of the aforementioned officers of the Company
are authorized to execute or guarantee and commit the Company to the conditions,
obligations, stipulations and undertakings contained in Contract No. CS-1368 and that
all necessary corporate approvals have been obtained in relationship thereto.

IN WITNESS THEREOF, I have set my hand this 10th day of
November, 2004.

CORPORATE SEAL


Corporate Officer's Signature

Vice President & General Counsel
Title

* This Signatory must be a DIFFERENT CORPORATE OFFICER than the
signatory on Page S-1.

November 2004

RESOLUTION OF CORPORATE AUTHORITY

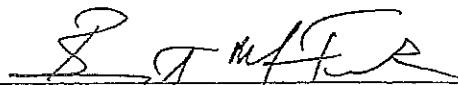
I, Bryant M. Frank, Secretary of Inland Waters Pollution Control, Inc., a Michigan corporation (the "Company") DO HEREBY CERTIFY that the following is a true and correct copy of a resolution of the Board of Directors duly adopted by written consent and that the same is now in full force and effect:

"RESOLVED that Dennis Oszust, as Vice President and General Manager, Pipe Rehabilitation Group of the Company, is hereby authorized to execute and deliver, in the name and on behalf of the Company and under its corporate seal or otherwise, any agreement or other instrument or document in connection with any matter or transaction that shall have been duly approved; the execution and delivery of any agreement; document, or other instrument, or document in connection with any matter or transaction that shall have been duly approved; the execution and delivery of any agreement, document or other instrument by Dennis Oszust to be conclusive evidence of such approval."

I FURTHER CERTIFY that Dennis Oszust is authorized to execute or guarantee and commit the Company to the conditions, obligations, stipulations and undertakings contained in the proposal and/or contract documents relative to DWSD CS-1368, ANY AMENDMENTS THERETO, INCLUDING COSTING SUPPLEMENT FOR AMENDMENT NO. 2 TO DWSD CONTRACT NO. CS-1368, TASK ER-37, 15 MILE ROAD & HAYES SEWER REPAIR "INSPECTION AND IN-PLACE REHABILITATION OF EXISTING CIRCULAR AND NON-CIRCULAR SEWERS UP TO 15 INCHES AND LARGER THAN 15 INCHES IN SIZE" project and that all necessary corporate approvals have been obtained in relationship thereto.

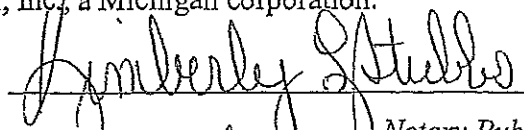
IN WITNESS THEREOF, I have set my hand this 13th day of April 2005.

CORPORATE SEAL

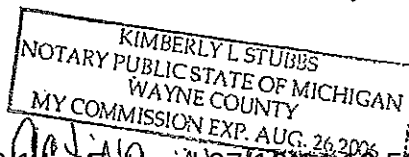

Corporate Officer's Signature, Secretary

STATE OF MICHIGAN }
COUNTY OF WAYNE } ss.

The foregoing instrument was acknowledged before me this 13th day of April 2005 by Bryant M. Frank, Secretary of Inland Waters Pollution Control, Inc., a Michigan corporation.


Notary Public,
Wayne County, Michigan

My Commission expires 08/26/06



CORPORATE ACKNOWLEDGMENT

STATE OF MICHIGAN)
)
COUNTY OF WAYNE)

The foregoing instrument was acknowledged before me this 10th day of NOVEMBER, 2004, by Robert L. Williams the President of INLAND WATERS Pollution Control, a Michigan Corporation on behalf of the Corporation.

Sheela L. Stephens

Notary Public, Wayne County, Michigan
My Commission Expires: **THEBA L. STEPHENS**
NOTARY PUBLIC MACOMB CO., MI
MY COMMISSION EXPIRES Sep 8, 2007

November 2004

City of Detroit
Water and Sewerage Department
Contract No. CS-1368

EXHIBIT A-I

THE SANITARY INTERCEPTOR EMERGENCY REHABILITATION

▪ **Project Tasks:**

Funding provided under the Amendment No. 2 will include, but not necessarily be limited to, the following tasks:

- Fabrication and installation of temporary emergency by pass in case 11-foot diameter existing sewer collapses in the sinkhole area. This consists of installation temporary by pass pumps and four 12-inch diameter lines between existing manholes on 11-foot diameter sewer upstream and downstream of the sinkhole area.
- Implementation of temporary permanent bypass pumping to convey sewage around the collapsed section of Interceptor and to prevent upstream flow backups. This includes the installation of two ten foot diameter suction shafts upstream and one eight foot diameter discharge shaft downstream of the damaged suction, pumps with electrical hook-up and diesel generators as backup and two thirty-six inch diameter HDPE (High-Density Polyethylene) pipes, 2,700 feet long each, with all necessary valves and appurtenances.
- Perform an investigation to determine the total extent of damages. This would include surveys, video inspections and a physical walk-through of the interceptor.
- Installation of sheeting to prevent the settlement of houses on the south side of 15 Mile Road
- Stabilization of the existing Interceptor to prevent further damage. This will involve the placement of steel bracing (ribs) within the sewer to support the concrete lining.
- Dewatering of groundwater that includes the installation of eleven dewatering wells along the sewer alignment to prevent groundwater from carrying soil into the Interceptor and keep the ground dry during excavation and repairs.
- Stabilization of the soil envelope around the Interceptor that includes injection of cementitious grout to fill voids around the damaged portion of the eleven foot diameter pipe and jet grouting to prevent further collapse of the soil around the sinkhole.
- Develop and implement plan to discharge sewage flow into an existing 60-inch diameter storm sewer belonging to the City of Sterling Heights, in case the damaged section of sewer plugs up and the bypass pumping system is not sufficient.
- Install two bulk heads, one each upstream and downstream side of the sinkhole to isolate the damaged portion of the sewer before excavation of the area for permanent repair.
- Develop design documents for the permanent repair
- Prepare final drawings for the repair
- Obtain all permits from jurisdictional authorities
- Implementation of repair including Road reconstruction and restoration of site, including but not limited to private property restorations as necessary.

BACKGROUND

The purpose of contract No. CS-1368 is to provide as-needed inspection and in-place rehabilitation of existing sewers at a cost of \$50,000,000.00 for the duration of three years on a task-order basis. Amendment No. 1 increased the contract price by \$10,000,000.00 with no change in the contract completion time. These services are needed to repair plugged sewers, repairs of major defects (collapses, breaks and investigating lateral connections) to maintain the flows within the wastewater collection system.

This proposed Amendment No. 2 is needed due to emergency conditions resulting from the apparent collapse of a section of a large DWSD sanitary interceptor located in Macomb County. On the morning of August 22, 2004, a massive sinkhole was discovered in 15-Mile Road between Hayes Road and Moravian drive in the City of Sterling Heights. The sinkhole was found increasing in size and posed an immediate threat to existing utilities and adjacent homes.

DWSD has taken the following steps to determine the extent of damage, stabilize the interceptor and adjacent soil envelope to prevent any further damage and prevent flow backups and potential basement flooding and repair of the damaged section:

1. Vactors were used to transport the flow from upstream of damaged section to downstream of the damaged section, while temporary emergency by-pass pumping was being installed in the upstream manhole and 8-inch and 12-inch diameter pipes were installed to carry the flow into existing 60-inch storm sewer, if the 11-foot diameter sewer collapses.
2. Started grouting around the perimeter of the sinkhole to stabilize the ground, using angle and jet grouting.
3. Started installing eleven (11) deep wells for dewatering purposes.
4. Steel sheeting was installed between south side of the interceptor sewer and houses to prevent any further settlement of houses.
5. Started the design work of building a temporary permanent bypass sewer line along 15 Mile Road which would handle a capacity of one hundred cubic feet per second wet weather flow. The bypass will be in use until the repair to the damaged section is complete.
6. Construction of a temporary permanent bypass pumping system is in progress, consisting of two ten foot diameter suction shafts and one 8 foot diameter shaft with pumps, electrical hook up and diesel generators as stand-by, two 2,700 foot long 36-inch diameter High Density Polyethylene (HDPE) discharge lines with all valves and appurtenances.
7. Implemented plan to discharge sewage flow into the existing 60-inch storm sewer belonging to the City of Sterling Heights, in case the 11-foot diameter sewer collapses fully and by-pass pumping does not keep up with the flow during a storm. A 4,800 gallon chlorine tanker is on-site with a chemist on

duty 24-hours a day to dose chlorine into the storm sewer and perform chlorine residual sampling, if the discharge into the 60-inch became necessary.

While the permanent bypass pumping system is being installed, the following actions are being taken:

1. Design and install earth retention system around the damaged section. This consists of soldier piles and auger cast piles and the necessary bracing for a length of 250 lineal feet, a width of 60 lineal feet and a depth of 92 feet.
2. Excavate the sink hole area up to an approximate depth of 70 feet, expose the existing damaged sewer, inspect for damage and cause of failure and remove the existing, damaged pipe.
3. Install new 11-foot diameter Class V reinforced concrete pipe.
4. Build a new access gate structure on the downstream side of the damaged pipe.
5. Backfill the sinkhole per DWSD and City of Sterling Heights and Macomb County Road Commission Standards.
6. Restore 15 Mile Road in the construction area as per City of Sterling Heights and Macomb County Road Commission Standards.
7. Restore the site equal to or better than the condition that existed prior to the sewer break and to the satisfaction of the jurisdictional authorities.

In order to provide DWSD with the means necessary to complete the work described above, the budget for the Contract CS-1368 needs to be increased by an amount of thirty-five million dollars (\$35,000,000.00) with a three hundred sixty-five day extension to the contract time.

City of Detroit
Water and Sewerage Department
Contract No. CS-1368

EXHIBIT B-2

COSTING SUMMARY FOR EXHIBIT A-1

**The terms of this Exhibit B-2 shall apply only to the work done pursuant to the
Scope of Work in Exhibit A-1**

CITY OF DETROIT
WATER & SEWER DEPARTMENT
GENERAL ADMINISTRATION

735 RANDOLPH STREET
DETROIT, MICHIGAN 48226-2830
PHONE 313-224-4800/224-4801
FAX 313-224-6067

September 20, 2004

Inland Water Pollution Control, Inc.
2021 South Schaefer Highway
Detroit, Michigan 48217

Attention: Mr. Dennis Oszust

Gentlemen:

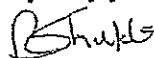
Regarding: DWSD Contract Number CS-1368, Task Number ER-37
Repair of Eleven Foot Sewer at Hayes and Fifteen Mile

The Detroit Water and Sewerage Department confirms that the following rates will be used for monthly invoices for this task:

- I- Consultants Invoices per Contract No. CS-1372:
 - i- Regular time will based on:
 - Direct Labor
 - Allowed overhead on direct labor
 - Allowed profit on direct labor
 - Allowed profit on over head
 - ii- Overtime
 - 1.5 times the direct labor for hours worked over 40 in a week or 2 times direct labor for Sundays and Holidays
 - 15% on overtime direct labor for overhead
 - Allowed profit on 1.5 times the direct labor or 2 times direct labor
 - Allowed profit on overhead
 - iii- Straight Time (Personnel)
The rate will be the same as regular time under item (i) for actual number of hours worked.
Attached is representative table for consultant's use to calculate the invoice amount.
- II- Contractor Invoices:
 - i- Mobilization and demobilization will be a maximum of 5% of total invoice for the task assigned to a contractor or subcontractor. Documentary proof will be provided to DWSD for the amount charged on this account.
 - ii- Field overhead will be charged for monthly invoices based on documentary proof for the amount charged.

Please be advised accordingly. If you have any questions, please call.

Very truly yours,



R. C. Shukla, P.E.

Field Engineer

RCS/Gr
Cc: NTH Consultants
L. D'Agostini & Sons

April 4, 2005

Mr. Robert L. Williams, President
Inland Waters Pollution Control, Inc.
2021 South Schaefer Highway
Detroit, Michigan 48217

Dear Mr. Williams:

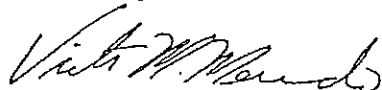
Regarding: Costing Supplement for Amendment No. 2 to DWSD Contract No. CS-1368
Task ER-37 – 15 Mile Road and Hayes Sewer Repair
“Inspection and In-Place Rehabilitation of Existing Circular and
Non-Circular Sewers up to 15 Inches and Larger than 15 Inches in Size”

The Detroit Water and Sewerage Department (DWSD) has established guidelines for payment of contracts paid on an actual costs plus fee basis. These guidelines govern allowable cost, mark-up percentages and the type of documentation required to substantiate charges. Please be advised that all invoices submitted must contain the required documentation. The mark-up rates included in the supplement were established through negotiations with DWSD and will be effective on work performed beginning December 3, 2004. The other cost guidelines contained in the attached “Costing Supplement” will govern all work performed on the contract from its inception until final completion. This supplement has been added to Amendment No. 2 of Contract No. CS-1368, Contract Costing, Exhibit B-2.

DWSD has retained \$597,945.95 of invoiced cost. The retained amount will be released when the project is 95% complete, as determined by the Department.

Thank you for your immediate attention to this matter. Please indicate your acceptance of these terms by signing below. If you have any questions, please contact Darryl Latimer at (313) 964-9486.

Sincerely,



Victor M. Mercado
Director

Accepted Inland Waters Pollution Control Inc.

By: 

Title: Vice President/General Manager, Pipe Rehabilitation Group

Name: Dennis Oszust

Date: April 11, 2005

VMM/DAL/ER

3/17/05
RCS 3/17/05

CS-1368 Amendment No. 2 Costing Supplement
(Effective December 3, 2004)

I. Payment Method

- A. Payment shall be made on an actual costs basis, with or without a guaranteed maximum, based on an itemized breakdown of the actual Cost of the Work involved, as specified in this Supplement, and a Fee for the Work involved, as specified in paragraph VII, below.
- B. Costs shall include those items for labor, material, equipment and other costs as approved by the DWSD Contracting Officer.

II. Labor, Subcontract and Material/Equipment Costs:

- A. The Cost of the Work involved includes the Contractor's payroll costs for craft labor resident at the site (through crew foremen) assigned to furnish and incorporating materials and equipment into the Work involved. Payroll costs shall include wages and those labor burdens certified in advance by an authorized financial representative of the Contractor. For actual payroll costs, daily Contractor-certified time sheets verified by the Engineer and certified payroll records shall be the only valid Records.
- B. The Cost of the Work involved includes the Contractor's costs for labor, (lower tier) Subcontract, material/equipment and supplemental costs of Subcontractors nominated for the Work involved. The methods for calculating Subcontractors' costs shall be the same as those for Contractor costs, except that the term "Subcontractor" shall replace the term "the Contractor," context permitting. If required by the Engineer, the Contractor shall obtain detailed competitive quotations and shall nominate two (2) Subcontractors, acceptable to the Contractor and Engineer, for selection by the Engineer.
- C. The Cost of the Work involved includes the Contractor's costs for materials and equipment, including transportation, storage and necessary Suppliers' field services. All trade discounts, rebates and refunds and returns from surplus sales shall accrue to the Owner, and the Contractor shall make arrangements so that they may be obtained. If required by the Engineer, the Contractor shall obtain competitive quotations for materials and equipment and shall nominate two (2) Suppliers, acceptable to the Engineer, for selection by the Engineer. Invoices segregating items associated with the Work involved shall be the record upon which to base actual Supplier costs.

III. Construction Equipment Costs:

- A. The Cost of the Work involved includes costs for individual construction equipment with replacement value in excess of \$1,000.00. Transportation, loading and unloading, installation, dismantling and removal costs shall be allowed only if prior consent is obtained from the Engineer, and if the equipment is, or was, transported to the site solely for the Work involved. Shipping costs will be allowed if the equipment requires use of a carrier, and provided the travel distance does not exceed that for similar equipment available in the Detroit metropolitan area. Multiple attachments shall be recoverable if prior consent is obtained from the Engineer. Equipment costs shall cease when the equipment is no longer needed for the Work involved. Payroll costs for labor operating the equipment are as specified in paragraph II.A. above. Equipment costs shall be computed using the same accounting and estimating rules and prices, whether related to added or deleted Work.
- B. When determining actual construction equipment costs, daily logs of the equipment, operators and actual usage, verified by the Engineer, shall be the valid records.
- C. Rented (or owned) equipment, idled solely by actions of the Owner or Engineer, shall be paid at the rate for rented equipment: (or at one-half (50%) of the rates for owned equipment), provided the idle period exceeds what is normal for the equipment and occurs during normal working hours.

IV. Rented or Leased Construction Equipment:

- A. For equipment rented or leased from lessors not associated with or owned by the Contractor, the Contractor shall be entitled to negotiated rental rates, but in no event shall the rates exceed those listed in the Rental Rate "Blue Book" published by Dataquest, Inc. for the Detroit metropolitan area applicable to the equipment (model number and year). The equipment rate for second or third shift Work shall not exceed fifty percent (50%) of the base rate. Operating costs shall not exceed the hourly operation rate in the Blue Book. Hourly rates for equipment previously in use on the Work for at least a month shall be based

NO 3/17/05
RLS 3/17/05

on the monthly rate divided by 176 hours. Equipment previously in use for only one week or not previously in use at the site shall not be invoiced to the Owner at rates higher than the following schedule of equipment use:

Less than 8 hours	Hourly Rate
1 day but less than 7 days	Daily Rate
1 week but less than 30 days	Weekly Rate
30 days or more (when in use)	Monthly Rate

V. Owned Construction Equipment:

- A. For equipment owned by the Contractor, or rented or leased from lessors associated with or owned by the Contractor, the Contractor shall be entitled to costs based on billings established by the Contractor's normal accounting practices, but in no event shall equipment ownership costs exceed the hourly rates listed in the "Contractor's Equipment Cost Guide," published by Data quest, for the Detroit Metropolitan area applicable to the equipment. Operating costs shall not exceed the hourly operation rate in the Blue Book. For multiple shifts, the equipment rate shall not exceed the shift Work adjustments recommended in the referenced Cost Guide.

VI. Costs Covered by the Fee for the Work Involved (and not Allowable as Cost of the Work Involved):

- A. The Cost of the Work involved shall not include any of the following expenses (considered non-reimbursable costs, or administrative costs, or field or home office overhead covered by the Fee for the Work involved):
1. Payroll costs and other compensation of (a) executives, general and administrative managers, estimators, claim consultants, attorneys, accountants, labor relation coordinators, contract and subcontract administrators, purchasers, expeditors and other administrative staff, whether resident at the site or in the Contractor's principal or branch offices; and (b) project managers, construction managers, superintendents, engineers, architects, schedulers, detailers, safety personnel, clerks and other administrative staff not resident at the site;
 2. Costs in the preparation of Change Orders or Change Authorizations (whether or not ultimately authorized by the Owner), or the preparation or filing of claims;
 3. Costs of engineers, architects, accountants, consultants, attorneys and others, in the direct employ of the Contractor or otherwise, utilized for services related to a controversy or claim about the acceptability of the Work;
 4. Any interest on the Work involved, charges for delinquent payments, lost interest on unpaid retainage, and lost profits and lost opportunities; or
 5. Any other expenses of the Contractor's principal and branch offices, including storage and yard facilities; and any costs not specifically and expressly allowed in this Article.

VII. Limits on Fee for the Work Involved:

- A. Any adjustment in Contract Price for Work involved shall include a negotiated Fee to cover (a) those costs described under paragraph VI above, and (b) negotiated profit. Any such Fee shall not exceed the following percentages:
1. Contractor - For Work involved performed or to be performed by (a) the Contractor, the Contractor's Fee shall not exceed ten percent (10%) of the Contractor's Cost of the Work involved, excluding supplemental costs, (b) any nominated Subcontractor, the Contractor's Fee shall be five percent (5%) of that Subcontractor(s)' Cost of the Work involved, excluding that Subcontractor's Fees.
 2. Subcontractors Nominated for the Work Involved - For Work involved performed or to be performed by: (a) any first tier Subcontractor, that first tier Subcontractor's Fee shall not exceed ten percent (10%) of that Subcontractor's Cost of the Work involved, excluding supplemental costs; (b) a lower tier Subcontractor, that lower tier Subcontractor's Fee shall not exceed ten percent (10%) of that Subcontractor's Cost of the Work involved, excluding supplemental costs, and any corresponding higher tier Subcontractors shall share equally a Fee of five percent (5%) of the performing lower tier Subcontractor's Cost of the Work involved, excluding the performing Subcontractor's fees.
 3. Consultant and Professional Engineers' Cost will remain as per the attached table.

BILLING RATE SHEETS
DWSD CONTRACT NO. CS-1368 TASK ER-37
15 MILE/HAYES SINK HOLE PROJECT

Column No.	A	B	C	D	E	F	TOTAL MULTIPLIER
ITEM NO.	NAME	TIME	HOURLY RATE (Direct Labor)	OVERHEAD RATE (For Indirect Costs)	PROFIT MARK UP (For Direct Labor)-15%	PROFIT MARK UP (For Indirect Costs)-9%	
1	NTH CONSULTANTS	STANDARD	1	1.6	0.15	0.144	2.894
		OVERTIME	0.5	0.075	0.075	0.00675	0.657
		DOUBLE TIME	1	0.15	0.15	0.0135	1.314
2	SPALDING DEDECKER	STANDARD	1	1.6	0.15	0.144	2.894
		OVERTIME	0.5	0.075	0.075	0.00675	0.657
		DOUBLE TIME	1	0.15	0.15	0.0135	1.314
3	SUPERIOR ENGINEERING	STANDARD	1	1.6	0.15	0.144	2.894
		OVERTIME	0.5	0.075	0.075	0.00675	0.657
		DOUBLE TIME	1	0.15	0.15	0.0135	1.314
4	LAKESHORE ENG	STANDARD	1	1.49	0.15	0.1341	2.774
		OVERTIME	0.5	0.075	0.075	0.00675	0.657
		DOUBLE TIME	1	0.15	0.15	0.0135	1.314

**NOTE: OVERHEAD RATE FOR OVERTIME AND DOUBLE TIME PREMIUM IS 15%
BILLING RATE IS CALCULATED BY MULTIPLYING DIRECT LABOR BY TOTAL MULTIPLIER**

Exhibit 2

BUDGET - AS OF SEPTEMBER 30, 2004.

	QTY	UNIT	L	LABOR	M	MATERIAL	E	EQUIPMENT	\$	SUB	TOTAL	CHRG BONDS	TOTAL
MOBILIZATION													
HWPC	5.00	DAYS	\$ 2,500.00	\$ 12,500.00	\$ 1,000.00	\$ 5,000.00	\$ 2,500.00	\$ 12,500.00	\$ 5,000.00	\$ 2,500.00	\$ 32,500.00	\$ 4,875.00	\$ 37,375.00
Mechine	5.00	DAYS		\$ -		\$ -		\$ -	\$ 4,000.00	\$ 20,000.00	\$ 20,000.00	\$ 3,500.00	\$ 23,500.00
Donor	10.00	DAYS		\$ -		\$ -		\$ -	\$ 3,500.00	\$ 35,000.00	\$ 35,000.00	\$ 3,500.00	\$ 38,500.00
Konradell	8.00	DAYS		\$ -		\$ -		\$ -	\$ 8,000.00	\$ 36,000.00	\$ 36,000.00	\$ 3,800.00	\$ 39,800.00
O'Laughlin	2.00	DAYS		\$ -		\$ -		\$ -	\$ 4,000.00	\$ 8,000.00	\$ 8,000.00	\$ 800.00	\$ 8,800.00
Thompson	3.00	DAYS		\$ -		\$ -		\$ -	\$ 3,500.00	\$ 10,500.00	\$ 10,500.00	\$ 1,050.00	\$ 11,550.00
Mack	1.00	DAYS		\$ -		\$ -		\$ -	\$ 7,000.00	\$ 42,000.00	\$ 42,000.00	\$ 4,200.00	\$ 46,200.00
Renschleib	8.00	DAYS		\$ -		\$ -		\$ -	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 10,000.00	\$ 110,000.00
LDAS	1.00	LS		\$ -		\$ -		\$ -	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 4,000.00	\$ 44,000.00
General Conditions													
LDAS	12.00	MO		\$ -		\$ -		\$ -	\$ 40,000.00	\$ 480,000.00	\$ 480,000.00	\$ 48,000.00	\$ 528,000.00
STAGING	1.00	LS	\$ 30,000.00	\$ 30,000.00	\$ 20,000.00	\$ 20,000.00	\$ 10,000.00	\$ 30,000.00	\$ -	\$ -	\$ 90,000.00	\$ 9,000.00	\$ 99,000.00
GENERAL CONDITIONS													
PROJECT MANAGEMENT													
ENGINEER	52.00	WEEKS	\$ 3,000.00	\$ 468,000.00		\$ -		\$ -	\$ -	\$ -	\$ 468,000.00	\$ 70,200.00	\$ 538,200.00
SUPERINTENDENT	52.00		\$ 6,000.00	\$ 416,000.00		\$ -		\$ -	\$ -	\$ -	\$ 416,000.00	\$ 62,400.00	\$ 478,400.00
SECURITY	104.00		\$ 4,000.00	\$ 416,000.00		\$ -		\$ -	\$ -	\$ -	\$ 416,000.00	\$ 62,400.00	\$ 478,400.00
TRAILERS	200.00		\$ -	\$ -		\$ -		\$ -	\$ 400.00	\$ 104,000.00	\$ 104,000.00	\$ 15,600.00	\$ 119,600.00
CLERICAL	80.00	MO	\$ -	\$ -		\$ -		\$ -	\$ 1,000.00	\$ 60,000.00	\$ 60,000.00	\$ 9,000.00	\$ 69,000.00
UTILITIES	156.00	WKS	\$ 400.00	\$ 62,400.00		\$ -		\$ -	\$ -	\$ -	\$ 62,400.00	\$ 9,360.00	\$ 71,760.00
PHONES	1.00	LS		\$ -		\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ELECTRICAL	48.00	MO		\$ -		\$ -		\$ -	\$ 300.00	\$ 14,400.00	\$ 14,400.00	\$ 2,160.00	\$ 16,560.00
MOB/MOB	60.00	MO		\$ -		\$ -		\$ -	\$ 200.00	\$ 12,000.00	\$ 12,000.00	\$ 1,800.00	\$ 13,800.00
PERMITS	1.00	LS	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ -	\$ -	\$ 30,000.00	\$ 4,500.00	\$ 34,500.00
Fence	30,000.00	LF		\$ -		\$ -		\$ -	\$ 4.00	\$ 40,000.00	\$ 40,000.00	\$ 6,000.00	\$ 46,000.00
DEWATERING													
INSTALLATION	1,000.00	LF	\$ 10.00	\$ 10,000.00	\$ 10.00	\$ 10,000.00	\$ 10.00	\$ 10,000.00	\$ -	\$ -	\$ 54,000.00	\$ 8,100.00	\$ 62,100.00
PUMPS	240.00	EA	\$ 50.00	\$ 12,000.00	\$ 10.00	\$ 2,400.00	\$ 3,000.00	\$ 720,000.00	\$ -	\$ -	\$ 734,400.00	\$ 78,440.00	\$ 812,840.00
MAINTENANCE	585.00	DAYS	\$ 2,160.00	\$ 760,400.00		\$ -		\$ -	\$ -	\$ -	\$ 768,400.00	\$ 78,940.00	\$ 847,340.00
MOUSE SHEETING	8,000.00	SF	\$ 10.00	\$ 80,000.00	\$ 18.00	\$ 158,400.00	\$ 10.00	\$ 80,000.00	\$ -	\$ -	\$ 354,400.00	\$ 35,440.00	\$ 389,840.00
ERY PASS PUMPING/TEMP													
METSONO	30.00	DAYS	\$ 6,000.00	\$ 180,000.00	\$ 1,000.00	\$ 30,000.00	\$ 4,000.00	\$ 120,000.00	\$ -	\$ -	\$ 330,000.00	\$ 33,000.00	\$ 363,000.00
THOMPSON	10.00	DAYS	\$ 1,000.00	\$ 10,000.00	\$ 1,000.00	\$ 10,000.00	\$ 1,500.00	\$ 15,000.00	\$ -	\$ -	\$ 35,000.00	\$ 3,500.00	\$ 38,500.00
O'LAUGHLIN	10.00	DAYS	\$ 4,000.00	\$ 40,000.00	\$ 5,000.00	\$ 50,000.00	\$ 3,000.00	\$ 30,000.00	\$ -	\$ -	\$ 120,000.00	\$ 12,000.00	\$ 132,000.00
PIPING-12"	6,000.00	LF	\$ 9.00	\$ 18,000.00	\$ 2.00	\$ 12,000.00	\$ 2.00	\$ 12,000.00	\$ -	\$ -	\$ 42,000.00	\$ 4,200.00	\$ 46,200.00
PIPING-36"	8,000.00	LF	\$ 5.00	\$ 30,000.00	\$ 60.00	\$ 360,000.00	\$ 5.00	\$ 30,000.00	\$ -	\$ -	\$ 420,000.00	\$ 42,000.00	\$ 462,000.00
MAINTENANCE	40.00	DAYS	\$ 2,500.00	\$ 100,000.00	\$ 500.00	\$ 20,000.00	\$ 1,000.00	\$ 40,000.00	\$ -	\$ -	\$ 100,000.00	\$ 10,000.00	\$ 110,000.00
Inland Waters trucking and shaft clearing	40.00	days	\$ 6,000.00	\$ 240,000.00	\$ 1,500.00	\$ 40,000.00	\$ 6,000.00	\$ 240,000.00	\$ -	\$ -	\$ 600,000.00	\$ 60,000.00	\$ 660,000.00
SECTION SHAFT #1													
SECTION SHAFT #2													

PAGE 1 OF 3

12/13/2004; 10:21 AM

DWSD001027

	QTY	UNIT	L	LABOR	M	MATERIAL	E	EQUIPMENT	S	SUB	TOTAL	OFFR BONDS	TOTAL
DISCHARGE SHAFT (TEMP)								\$ 30,000.00			\$ 30,000.00	\$ 3,000.00	\$ 33,000.00
DISCHARGE (PERMANENT)								\$ 700,000.00			\$ 700,000.00	\$ 70,000.00	\$ 770,000.00
BY-PASS PUMP (PERMANENT)													
2-37" X 31 PLUS 2-4" FCS	12.00	MC	\$ 1,000.00	\$ 12,000.00	\$ 3,000.00	\$ 36,000.00	\$ 146,620.28	\$ 1,758,443.12			\$ 1,807,443.12	\$ 271,116.47	\$ 2,078,559.59
STAND-BY 6-24" PLUS 6-30" DRAIN	12.00	MO	\$ 900.00	\$ 6,000.00	\$ 1,000.00	\$ 12,000.00	\$ 89,260.00	\$ 638,530.00			\$ 639,530.00	\$ 128,628.00	\$ 768,158.00
Stand-by Pumps (30761-24"	12.00	MO	\$ 1,000.00	\$ 12,000.00	\$ 600.00	\$ 7,200.00	\$ 8,480.00	\$ 101,780.00			\$ 120,860.00	\$ 18,144.00	\$ 138,104.00
Accessories	18.00	EA	\$ 3,000.00	\$ 48,000.00	\$ 5,000.00	\$ 80,000.00	\$ 3,000.00	\$ 48,000.00			\$ 179,000.00	\$ 38,400.00	\$ 222,400.00
PIPING	1.00	LS	\$ 45,000.00	\$ 45,000.00	\$ 10,000.00	\$ 10,000.00	\$ 30,000.00	\$ 30,000.00			\$ 80,000.00	\$ 9,000.00	\$ 94,000.00
CHAMBERS	600.00	EA	\$ 15,000.00	\$ 120,000.00	\$ 15,000.00	\$ 120,000.00	\$ 6,000.00	\$ 48,000.00			\$ 288,000.00	\$ 28,800.00	\$ 316,800.00
MAINTENANCE	1.00	LS	\$ 1,000.00	\$ 1,000.00	\$ 100.00	\$ 100.00	\$ 300.00	\$ 180,000.00			\$ 181,300.00	\$ 100,800.00	\$ 282,100.00
PIPING-16" - 36"	1.00	LS	\$ 15,000.00	\$ 15,000.00	\$ 30,000.00	\$ 30,000.00	\$ 12,000.00	\$ 12,800.00			\$ 57,000.00	\$ 5,700.00	\$ 62,700.00
VALVES-2-30"	2.00	EA	\$ 2,000.00	\$ 4,000.00	\$ 40,000.00	\$ 40,000.00	\$ 500.00	\$ 1,000.00			\$ 86,000.00	\$ 8,600.00	\$ 94,600.00
VALVES-CHECK-2EA-30"	2.00	EA	\$ 8,000.00	\$ 12,000.00	\$ 35,000.00	\$ 70,000.00	\$ 3,000.00	\$ 6,000.00			\$ 85,000.00	\$ 8,500.00	\$ 93,500.00
CHECK VALVES-2EA-24"	2.00	EA	\$ 8,000.00	\$ 12,000.00	\$ 35,000.00	\$ 70,000.00	\$ 3,000.00	\$ 6,000.00			\$ 85,000.00	\$ 8,500.00	\$ 93,500.00
42" PIPE, TEES & REDUCERS-WEST END	1.00	LS	\$ 20,000.00	\$ 20,000.00	\$ 30,000.00	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00			\$ 65,000.00	\$ 6,500.00	\$ 71,500.00
42" VALVE	1.00	EA	\$ 7,000.00	\$ 7,000.00	\$ 60,000.00	\$ 60,000.00	\$ 7,000.00	\$ 7,000.00			\$ 74,000.00	\$ 7,400.00	\$ 81,400.00
VALVES-1-24"	3.00	EA	\$ 3,000.00	\$ 9,000.00	\$ 30,000.00	\$ 90,000.00	\$ 500.00	\$ 1,500.00			\$ 100,500.00	\$ 10,050.00	\$ 110,550.00
ELECTRICAL SETUP	1.00	LS							\$ 130,000.00	\$ 130,000.00	\$ 150,000.00	\$ 15,000.00	\$ 165,000.00
EMERGENCY - 60"	1.00	LS	\$ 5,000.00	\$ 5,000.00	\$ 8,000.00	\$ 8,000.00	\$ 3,000.00	\$ 3,000.00			\$ 16,000.00	\$ 1,600.00	\$ 17,600.00
VALVES	2.00	EA	\$ 3,000.00	\$ 6,000.00	\$ 40,000.00	\$ 80,000.00	\$ 1,500.00	\$ 3,000.00			\$ 89,000.00	\$ 8,900.00	\$ 97,900.00
CHAMBERS	2.00	EA	\$ 5,000.00	\$ 10,000.00			\$ 5,000.00	\$ 10,000.00	\$ 20,000.00	\$ 40,000.00	\$ 60,000.00	\$ 6,000.00	\$ 66,000.00
ELECTRICAL WORK/ENERGY	12.00	MO	\$ 25,000.00	\$ 300,000.00	\$ 15,000.00	\$ 180,000.00					\$ 480,000.00	\$ 48,000.00	\$ 528,000.00
38" VALVES	5.00	EA	\$ 8,000.00	\$ 30,000.00	\$ 45,000.00	\$ 225,000.00	\$ 7,000.00	\$ 35,000.00			\$ 280,000.00	\$ 28,000.00	\$ 318,000.00
Divers INSPECTION/auditing	50.00	DAYS							\$ 5,000.00	\$ 5,000.00	\$ 250,000.00	\$ 25,000.00	\$ 275,000.00
BULK HEAD/GAS/SC METALS	2.00	EA	\$ 100,000.00	\$ 200,000.00	\$ 100,000.00	\$ 200,000.00	\$ 50,000.00	\$ 100,000.00			\$ 500,000.00	\$ 50,000.00	\$ 550,000.00
TUNNEL SUPPORT	30.00	EA	\$ 1,000.00	\$ 80,000.00	\$ 218.80	\$ 10,900.00	\$ 1,000.00	\$ 60,000.00			\$ 110,000.00	\$ 11,000.00	\$ 121,000.00
SOIL STABILIZATION													
ANGLE	23.00	EA							\$ 10,000.00	\$ 230,000.00	\$ 230,000.00	\$ 23,000.00	\$ 253,000.00
JET GROUT	30.00	EA							\$ 18,000.00	\$ 540,000.00	\$ 540,000.00	\$ 54,000.00	\$ 594,000.00
CLINTON/FRAISER BYPASS	12.00	MO	\$ 25,000.00	\$ 300,000.00	\$ 3,000.00	\$ 36,000.00	\$ 10,000.00	\$ 120,000.00			\$ 458,000.00	\$ 45,800.00	\$ 503,800.00
PIPE REPAIR													
VENTILATION	12.00	MO	\$ 5,000.00	\$ 60,000.00	\$ 3,000.00	\$ 36,000.00	\$ 10,000.00	\$ 120,000.00			\$ 216,000.00	\$ 21,600.00	\$ 237,600.00
SOLDIER PILES W/HP (41F)	135.00	EA	\$ 3,500.00	\$ 472,500.00	\$ 4,500.00	\$ 607,500.00	\$ 3,000.00	\$ 485,000.00			\$ 1,485,000.00	\$ 148,500.00	\$ 1,633,500.00
SOLDIER PILES (41F)	135.00	EA	\$ 3,500.00	\$ 472,500.00	\$ 1,000.00	\$ 135,000.00	\$ 3,000.00	\$ 485,000.00			\$ 1,012,000.00	\$ 101,200.00	\$ 1,113,200.00
BRACING (BUY 1/2)	600,000.00	LBS	\$ 0.50	\$ 300,000.00		\$ 300,000.00	\$ 0.25	\$ 150,000.00			\$ 780,000.00	\$ 75,000.00	\$ 855,000.00
EXCAVATION (TRENCH SHEETING	14,180.67	CY	\$ 20.00	\$ 283,613.33	\$ 14.00	\$ 198,533.33	\$ 10.00	\$ 141,806.67			\$ 623,333.33	\$ 62,333.33	\$ 685,666.67
SEDIMENT (CONCRETE)	416.67	CY	\$ 50.00	\$ 20,833.33	\$ 60.00	\$ 25,000.00	\$ 30.00	\$ 12,000.00			\$ 55,833.33	\$ 5,583.33	\$ 61,416.67
SLOPE EXCAVATION	14,755.56	CY	\$ 10.00	\$ 147,555.56	\$ 14.00	\$ 205,977.76	\$ 10.00	\$ 147,555.56			\$ 307,888.88	\$ 30,788.88	\$ 338,677.76
REMOVE OLD PIPE	300.00	LF	\$ 500.00	\$ 150,000.00	\$ 100.00	\$ 30,000.00	\$ 300.00	\$ 90,000.00			\$ 270,000.00	\$ 27,000.00	\$ 297,000.00
CONNECTIONS	2.00	EA							\$ 50,000.00	\$ 100,000.00	\$ 100,000.00	\$ 10,000.00	\$ 110,000.00
11 FEET PIPE	300,000.00	LF	\$ 400.00	\$ 120,000.00	\$ 450.00	\$ 135,000.00	\$ 400.00	\$ 120,000.00			\$ 375,000.00	\$ 37,500.00	\$ 412,500.00
BACKFILL	30,000.00	CY	\$ 5.00	\$ 150,000.00	\$ 14.00	\$ 420,000.00	\$ 4.00	\$ 120,000.00			\$ 690,000.00	\$ 69,000.00	\$ 759,000.00
Additional carbonate bedding	2,850.00	CY	\$ 10.00	\$ 28,500.00	\$ 40.00	\$ 114,000.00	\$ 5.00	\$ 14,250.00			\$ 156,750.00	\$ 15,675.00	\$ 172,425.00

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	QTY	UNIT	L	LABOR	M	MATERIAL	E	EQUIPMENT	\$	SUB	TOTAL	CHIPS BOMBS	TOTAL	
EXCAVATION/MISC.	1.00	LS		\$		\$		\$	200,000.00	\$	200,000.00	\$	200,000.00	
GATE STRUCTURE	1.00	EA		\$		\$		\$	1,800,000.00	\$	1,800,000.00	\$	1,800,000.00	
EXTRA MANHOLES/CLOSURES	4.00	EA		\$		\$		\$	40,000.00	\$	160,000.00	\$	160,000.00	
MASS EXCAVATION				\$		\$		\$	-	\$	-	\$	-	
MASS BACKFILL	3,000.00	CY	\$	5.00	\$	15,000.00	\$	4.00	\$	12,000.00	\$	5,700.00	\$	62,700.00
CLEAN PIPE	2,500.00	LF	\$	100.00	\$	250,000.00	\$	100.00	\$	250,000.00	\$	53,200.00	\$	598,200.00
UTILITY RELOCATIONS				\$		\$		\$	-	\$	-	\$	-	
ELEC. ABOVE	1.00	LS		\$		\$		\$	500,000.00	\$	500,000.00	\$	500,000.00	
CABLE	1.00	LS		\$		\$		\$	100,000.00	\$	100,000.00	\$	10,000.00	
TELEPHONE	1.00	LS		\$		\$		\$	200,000.00	\$	200,000.00	\$	20,000.00	
SEWER	500.00	LF		\$		\$		\$	40.00	\$	20,000.00	\$	2,000.00	
WATER	500.00	LF		\$		\$		\$	-	\$	-	\$	-	
RESTORATION				\$		\$		\$	-	\$	-	\$	-	
BRICK WALL	1.00	EA		\$		\$		\$	30,000.00	\$	30,000.00	\$	3,000.00	
SHRUBS	1.00	LS		\$		\$		\$	40,000.00	\$	40,000.00	\$	4,000.00	
SIDEWALK	30,000.00	SF		\$		\$		\$	4.00	\$	120,000.00	\$	12,000.00	
PAVEMENT	10,000.00	SY		\$		\$		\$	80.00	\$	800,000.00	\$	80,000.00	
SOD	10,000.00	SY		\$		\$		\$	6.00	\$	60,000.00	\$	6,000.00	
CLEANUP	1.00	LS		\$		\$		\$	500,000.00	\$	500,000.00	\$	50,000.00	
ENGINEERING	1.00	ls		\$		\$		\$	2,300,000.00	\$	2,300,000.00	\$	2,350,000.00	
ELECTRICAL	1.00	LS		\$		\$	\$	150,000.00	\$	150,000.00	\$	40,000.00	\$	440,000.00
TEMP ROADS	3.00	LS		\$		\$		\$	5,000.00	\$	15,000.00	\$	1,500.00	
HARRISBORO TWP PUMPING	12.00	MO		\$		\$		\$	3,000.00	\$	36,000.00	\$	3,600.00	
BARRICADES	12.00	MO		\$		\$		\$	-	\$	-	\$	-	
GATE @GARFIELD	1.00	LS	\$	15,000.00	\$	5,000.00	\$	15,000.00	\$	5,000.00	\$	4,000.00	\$	44,000.00
Shoring Heights	\$	1.00	h			\$		\$	200,000.00	\$	200,000.00	\$	20,000.00	
TOTALS				\$ 7,384,522.22		\$ 4,573,401.11		\$ 8,818,895.34		\$ 9,847,400.00	\$ 30,405,018.68	\$ 3,297,883.00	\$ 53,702,881.70	
												TOTAL	\$ 33,702,881.70	
PHASE II														
CLEAN TO CORRIDOR														
GROUTING														